

Amendment and Response

Applicant: Lizhang Yan;

Serial No.: 10/687,329

Filed: October 16, 2003

Docket No.: 59093US002

Title: OPTICAL INTERCONNECT DEVICERECEIVED
CENTRAL FAX CENTER
SEP 27 2006**IN THE CLAIMS**

Please amend the claims as set forth in this listing of claims, which replaces all prior versions, and listings, of the claims.

1. (Currently Amended) An optical interconnect device comprising:
 - (a) a plurality of fiber optic cables, each cable having two ends and comprising at least one optical fiber surrounded by a protective jacket where the diameter of each fiber optic cable is larger than the diameter of its optical fiber and where the protective jacket of at least a first end of the fiber optic cable have been removed thereby exposing first ends of the optical fibers;
 - (b) a ribbonized assembly defining an input zone, a transition zone and an output zone encasing a portion of the first ends of the fiber optic cables and the optical fibers, where the fiber optic cables lie in a first plane and occupy ~~an~~ the input zone, the fibers lie in a second plane substantially parallel to the first plane and occupy ~~an~~ the output zone, the cables and fibers both occupy ~~a~~ the transition zone in which the fibers are non-parallel, and the optical fibers in the output zone lie parallel to one another and have a first pitch; and
 - (c) a ferrule ~~attached to terminating~~ the ribbonized assembly, the ferrule having a plurality of internal grooves having a second pitch,wherein the first pitch of the optical fibers is substantially equal to the second pitch of the ferrule.
2. (Previously Presented) The device of claim 1, wherein the optical fibers in the ribbonized assembly are touching one another.
3. (Original) The device of claim 1, wherein the ribbonized assembly is of a geometry that will not violate the minimum bend radius of the optical fiber.
4. (Previously Presented) The device of claim 1 wherein at least one of the fiber optic cables is a tight buffer fiber cable or a ruggedized fiber cable.

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5. (Cancelled)
6. (Original) The device of claim 1, wherein the ribbonized assembly comprises an ultraviolet light curable resin.
7. (Original) The device of claim 1, wherein the ribbonized assembly further comprises non-active fibers disposed adjacent to the optical fibers.
8. (Previously Presented) The device of claim 7, wherein the non-active fibers are of the same construction as the optical fibers.
9. (Original) The device of claim 8, wherein the non-active fibers are disposed between the optical fibers.
10. (Original) The device of claim 8, wherein the optical fibers are disposed between the non-active fibers.
11. (Previously Presented) The device of claim 1, wherein the protective jacket on both ends of at least one fiber optic cable has been removed to expose the optical fibers.
12. (Original) The device of claim 11 wherein the ferrule is terminated to a MT connector.
13. (Previously Presented) The device of claim 12, wherein the second end of at least one of the fiber optic cables is terminated to an optical device.
14. (Original) The device of claim 13, wherein the optical device is selected from the group consisting of simplex fiber optic connector, duplex fiber optic connector, parallel fiber optic connector, MT connector, simplex fusion splint, parallel fusion splint, mechanical splice splint, simplex v-groove, furcation block, shuffle block, and combinations thereof.

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15. (Original) The device of claim 1, wherein the ribbonized assembly is straight or curved.
16. (New) An optical interconnect device comprising:
- (a) a plurality of fiber optic cables, each cable having two ends and comprising at least one optical fiber surrounded by a protective jacket where the diameter of each fiber optic cable is larger than the diameter of its optical fiber and where the protective jacket of at least a first end of the fiber optic cable have been removed thereby exposing first ends of the optical fibers;
 - (b) a ribbonized assembly encasing a portion of the first ends of the fiber optic cables and the optical fibers, where the fiber optic cables lie in a first plane and occupy an input zone, the fibers lie in a second plane substantially parallel to the first plane and occupy an output zone, the cables and fibers both occupy a transition zone in which the fibers are non-parallel, and the optical fibers in the output zone lie parallel to one another and have a first pitch, wherein non-active fibers of the same construction as the optical fibers are disposed between the optical fibers; and
 - (c) a ferrule attached to the ribbonized assembly, the ferrule having a plurality of internal grooves having a second pitch,
- wherein the first pitch of the optical fibers is substantially equal to the second pitch of the ferrule.